SECTION 2D

Assessing payment adequacy and updating payments for home health services

RECOMMENDATIONS

2D-1 The Secretary should continue a series of nationally representative studies on access to home health services (similar to studies previously conducted by the Department of Health and Human Services' Office of Inspector General).

***YES: 16 • NO: 0 • NOT VOTING: 0 • ABSENT: 1**

2D-2 The Congress should extend for one year add-on payments at 5 percent for home health services provided to Medicare beneficiaries who live in rural areas.

YES: 16 • NO: 0 • NOT VOTING: 0 • ABSENT: 1

2D-3 The Congress should eliminate the update to payment rates for home health services for fiscal year 2004.

YES: 15 • NO: 0 • NOT VOTING: 1 • ABSENT: 1

***COMMISSIONERS' VOTING RESULTS**

SECTION 2D

Section 2D: Assessing payment adequacy and updating payments for home health services

In this section

- Assessing payment adequacy
- Accounting for providers' cost changes in the coming year
- Update recommendation

Our review of the evidence finds that aggregate Medicare payments for home health services are more than adequate relative to costs, even after accounting for the reduction in the base payment for fiscal year 2003. Our estimate of the Medicare margin for home health services in fiscal year 2003 is 23.3 percent. Changes in the home health product over the past five years have reduced the costs of producing an episode of home health services. Our evidence suggests that the costs of producing an episode of home health services will continue to decrease, at a slower pace, over the coming year. Medicare spending for home health is projected to increase due to growth in both the number of users and payments per user. Other broad indicators also suggest that payments are adequate: access to care is generally good, the rate of decline in the number of users has decreased, and the entry and exit of agencies has remained stable for the third year in a row.

Background

Assessing payment adequacy and making an appropriate update for home health services requires consideration of the benefit itself, how providers are paid for the services, and the context of recent trends in spending.

Home health care is skilled nursing, aide service, medical social work, or therapy provided to beneficiaries in their places of residence. To qualify for Medicare's home health benefit, beneficiaries must meet the program's eligibility criteria: they must need part-time or intermittent skilled care to treat their illness or injury, and they must be homebound. Medicare's coverage does not include unskilled care to maintain a person's health unless it is required in conjunction with medical treatment by a skilled medical professional. In some instances, skilled care over a long period of time would be covered. Also in some instances, skilled care for patients whose medical condition is stable would be covered. However, patients who need more or less full time skilled nursing care over an extended period of time generally would not qualify for Medicare home health benefits (CMS 2001). To qualify for coverage, beneficiaries must also be unable to leave their homes without considerable effort.

Throughout the early 1990s the use of the home health benefit changed. A growing proportion of the home health benefit was directed toward beneficiaries' long term care needs, and less to the medical services necessary for the diagnosis and treatment of illness or injury that are covered under other Medicare post-acute care benefits. By 1996, one-third of all visits were provided to beneficiaries who received over 300 visits a year (MedPAC 1998). Legislative changes to Medicare in the Balanced Budget Act of 1997 (BBA) included refinements to the eligibility standards and two new payment systems that made home health care more similar to Medicare's other post-acute care services. The continuing impact of the changes made in 1997 is evident in 2001 in substantially slower but continuing declines in the number of home health users, the duration of their care, and the number of visits they use. This chapter examines the change in the home health product, and the implications for our assessment of payment adequacy.

Home health services payment system

The current structure of the payment system continues to have a profound effect on home health services (see text box). Under Medicare's prospective payment system (PPS) for home health care implemented in October 2000, home health agencies receive payment for 60-day episodes of care. Neither copayments nor deductibles apply to home health. The base payment amount for an episode of care is $2,160 for fiscal year 2003. The base payment is adjusted to account for differences in patients' expected resource needs, as reflected by their clinical and functional severity, recent use of other health services, and therapy use. Payment also is adjusted for differences in local market conditions by the hospital wage index. Adjustments for several other special circumstances, such as outliers or episodes with four or fewer visits, can also modify the payment (see Appendix A for more information on the home health payment system).

The structure of the home health PPS provides financial incentives for home health agencies to reduce the number of visits delivered in an episode of care. So long as high quality of care persists, we can infer that such declines increase the efficiency of the provider, rather than adversely affect patients' outcomes. Concern about the incentives that the PPS would introduce once it was implemented led CMS to develop the Outcome and Assessment Information Set (OASIS) to monitor the quality of home health care. We have used OASIS measures as part of our assessment of payment adequacy to indicate whether high quality of care has persisted.

Trends in Medicare payments for home health services

Over the past 10 years, Medicare spending for home health has changed from unprecedented growth to rapid decline, only to return to projections of rapid growth for the next 5 years. Between 1990 and 1996, spending grew nearly 400 percent, with some year-to-year growth as high as 50 percent (Figure 2D-1, p. 6).

Previous research (Komisar and Feder 1998) disaggregated the components of growth in spending from 1990 to 1996 and attributed it to increases in the:

- number of Medicare beneficiaries, 7 percent
- proportion of home health users among Medicare beneficiaries, 36 percent
- visits per home health user, 49 percent
- average payment per visit, 9 percent.

This research suggests that the level of payment per unit of service is only one influence among several that affect the spending and use of the home health benefit. At its high point in 1997, Medicare spent $18 billion on home health services for beneficiaries.

Changes to the home health benefit—especially changes to the system of paying for home health—led to a rapid decline in use, and hence spending, after 1997 (see text box). In 2001, Medicare spent between $9 and $11 billion[1] on home health services; as a sector, home health represented about 4 percent of total Medicare fee for service spending (Figure 2D-1, p. 106). Spending for home health services is composed entirely of program spending; beneficiaries have no cost-sharing obligations for home health services.

1 Estimates from the Congressional Budget Office and Office of the Actuary vary.

Changes in use of the Medicare home health benefit

Use of Medicare's home health benefit has changed considerably over the past 10 years. In 1990, fewer than 2 million beneficiaries used the home health benefit. Between 1990 and 1996, the number of users grew 85 percent, adding over one million beneficiaries to the number of users of the benefit. The trend was reversed in 1997; by 2001 the number of users had fallen to around 2.2 million.

Three influences—changes in the criteria for beneficiaries' eligibility to receive home health services, enforcement of the rules of the program for providers, and the structure of the payment system and incentives associated with it—have shaped the trends in use and spending for Medicare's home health benefit over the past 10 years as much or more than the level of payment for a unit of home health service.

Leading to growth

- **Eligibility.** In 1989, a legal decision (*Duggan v. Bowen*) made the Health Care Financing Administration (HCFA, now CMS) change its interpretation of eligibility for the benefit so that persons who needed daily, long-term-care—often beneficiaries with chronic conditions—could qualify.

- **Enforcement.** That legal decision also constrained HCFA's ability to deny coverage and payment in many instances. Pursuant to the decision, HCFA could no longer deny payments for some marginal visits for a given beneficiary based upon general inferences about patients with similar diagnoses, but instead had to review the entire case of each beneficiary individually.

- **Incentives.** Prior to the PPS, home health agencies were paid for each visit according to visit types—generally therapy, nursing, or home health aide. Per-visit payments encouraged agencies to provide as many visits as possible as long as their costs were less than the per-visit payment limits for that type of visit.

Following these changes, use of the benefit grew. In 1996, over 3.5 million beneficiaries used the home health benefit. Concern over the rapid rate of growth and the changing nature of the services led to legislation and other actions intended to reverse the trends.

Changing direction

- **Eligibility.** In 1997, the BBA clarified the acceptable frequency of visits and removed the drawing of blood as a qualifying service. By defining the term "part-time or intermittent," the BBA narrowed coverage of very frequent or nearly full-time care from 56 hours per week of nursing and home health aide service to 35 hours per week (Komisar and Feder 1998). Agencies reported that excluding the drawing of blood decreased the number of users "significantly" in at least six high-use states (GAO 1999).

- **Enforcement.** The Secretary initiated Operation Restore Trust,[1] which scrutinized Medicare home health, prompted the involuntary closure of hundreds of agencies that were not in compliance with the program's integrity standards, and established civil liabilities for physicians who knowingly falsely certified the eligibility of a beneficiary.

- **Incentives.** The structure of the interim payment system (IPS) implemented in 1997 gave incentives for agencies to maintain a mix of patients who needed few visits and inexpensive visits to stay below the cost limits. Under IPS, agencies were paid the lesser of actual costs, aggregate costs per beneficiary subject to an agency-specific limit, or aggregate costs per visit subject to an agency-specific limit. There were no outlier payments for high cost patients. In MedPAC's survey of changes in provider behavior, providers stated that many tried to avoid costly patients under the IPS (Stoner et al. 1999).

In the wake of these changes, the number of Medicare beneficiaries using home health care decreased by about one million. The decrease in use was caused by decreases in the number of eligible beneficiaries, a decline in the number of beneficiaries who needed continuous care using the benefit, a decline in fraudulent or questionable use of the benefit, and the structure and incentives of the IPS. Fifteen percent of

(*continued next page*)

[1] Operation Restore Trust began as a demonstration project in 1995 in California, Florida, Illinois, New York, and Texas and was expanded to additional states in 1997. It included skilled nursing facilities and other sectors of Medicare in addition to home health.

Changes in use of the Medicare home health benefit (*continued*)

users in 1996 had more than 150 visits in the year; the decline in the average visits per user from 1997 to 2001 (see "Changes in volume," p. 110) suggests that such heavy use is no longer common.

Though there were fewer Medicare home health users in 2001 than in 1999, the rate of decline has slowed. Use of home health is projected to return to its pattern of growth as the effects of the PPS are more fully felt (CBO 2002). The PPS creates an environment that allows providers to care for costlier, more complex patients with less financial risk than under the IPS.

Anticipating growth

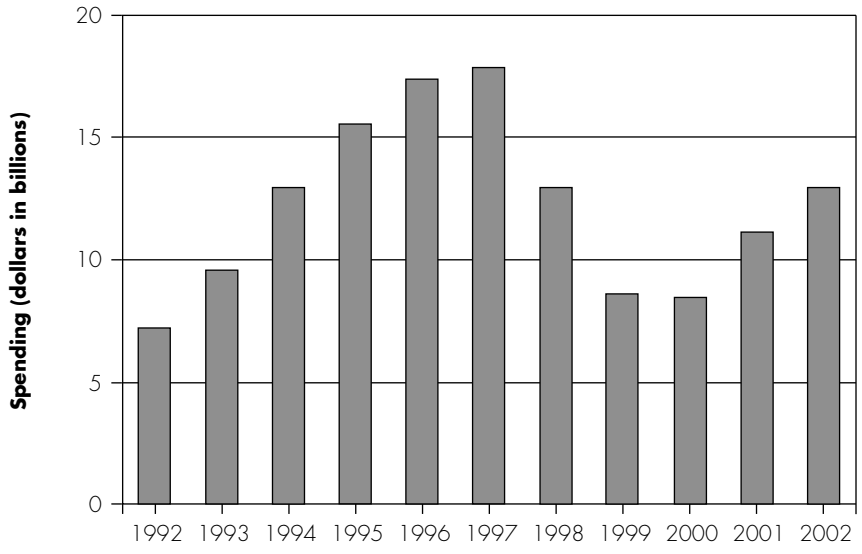
- **Incentives.** The PPS removes some of the features of the IPS that contributed to the decline in home health users. Under PPS, agencies can maximize margins by keeping costs per episode below the payment and by maximizing the number of episodes they provide. The PPS reflects the clinical and functional severity of the patient in the episode payment; thus an episode that is likely to be costly receives a higher reimbursement than one for a beneficiary with lower expected resource needs. Reflecting the anticipated needs of the patient in the payment removes the disincentive to care for patients with costly care needs.

  The PPS pays more for patients who need therapy (as long as at least 10 therapy visits are provided) and for multiple episodes of home health care use. It also has an outlier policy to pay for the costliest patients. While one could expect more dramatic changes in use than have been observed thus far, the new system may require some refinements and it may take some time for providers to adapt.

- **Eligibility.** The "homebound" criteria was loosened by BIPA. Some beneficiaries who would have been ineligible due to their participation in religious services or adult day care will now be eligible to receive the benefit. This could increase the number of beneficiaries using the home health benefit, though the General Accounting Office estimates that the impact will be negligible (GAO 2002a).

- **Enforcement.** The Office of Inspector General continues to monitor this sector for fraudulent or abusive behavior. Physicians remain cautious due to what they perceive to be harsh penalties for improper home health referrals. Due to the continued diligence, it seems unlikely that inappropriate use of the benefit will increase. ■

FIGURE 2D-1 **Estimated spending for home health, 1992–2002**



Source: Office of the Actuary, CMS, 2002.

In its March 2002 detailed baseline estimate, the Congressional Budget Office (CBO) projected an average annual growth for Medicare home health of 17 percent from 2002 to 2007. In August, the CBO indicated that they will revise their March estimate downward for home health spending because of a new, more moderate projection of the growth in use of the benefit. CBO's updated projections for home health services have not yet been released.

Assessing payment adequacy

Our analysis of current payments and costs for Medicare home health services concludes that payments are more than adequate. This conclusion is based on

estimates of a substantial, positive aggregate margin; a high ratio of payments to charges for claims for both urban and rural beneficiaries' services; evidence of product change; declining visit volume; generally good access to care; and a stable number of providers with little entry or exit.

Current payments and costs

We used three different approaches to estimate the current relationship of payments to efficient provider's costs. First, we estimated the aggregate Medicare margin using reported costs and payments from a sample of agencies' cost reports from fiscal year 2001. Next, we combined reported costs from 1999 with claims from 2001 and 2002 to estimate the impact of changes in visit volume on costs. Combining the first and second estimates allowed us to project margins for the current year. Finally, we used claims from 2001 and 2002 to calculate the ratio of payments to charges for different types of episodes as well as for urban and rural beneficiaries. We also reviewed the General Accounting Office's estimate of payments and costs per episode.

Together, these estimates show that current payments are more than adequate when compared to costs.

Medicare margin

One method the Commission uses to evaluate the adequacy of current payments is calculating the relationship between payments and costs (Table 2D-1). Current costs and payments are estimated by updating the most recent available data. For the home health sector, the most recent available cost reports cover fiscal year 2001 (October 1, 2000 to September 31, 2001), the period immediately following the implementation of the PPS.

Seven hundred freestanding agencies' cost reports were available; as a sample they represent about 10 percent of all Medicare certified agencies. These margins do not include hospital-based home health agencies because their cost reports for fiscal 2001 were not yet available. About 30 percent of all agencies were hospital-based in 2000. The sample was not random, though it did contain a proportional number of urban and rural providers and a proportional number of providers by type of control (voluntary, private, and government).

In modeling 2003 payments and costs, we incorporate both policy changes that went into effect in 2003 and those scheduled to be in effect in 2004. For the home health sector, the 2003 estimate includes the effect of the so-called "15 percent cut" implemented on October 1, 2002 and the expiration of the 10 percent rural add-on for services provided to beneficiaries living outside metropolitan areas. Though the add-on is not scheduled to expire until April 2003, in our estimate we removed it for all of 2003 to better inform our decision regarding the 2004 update.

We estimate that the aggregate financial Medicare margin for all home health agencies is 23 percent in fiscal year 2003. The estimate of margins in 2003 incorporates the increase in the base rate of payment in fiscal year 2002, the decrease in the base rate due to the "15 percent cut" in fiscal year 2003, the effects of the expiration of the rural add-on, and continuing small declines in the cost of producing an episode of care.

The current estimated Medicare financial margin of 23 percent suggests that aggregate payments are more than adequate when compared to costs. We were able to measure some variations in margins two ways: by the total volume of visits for each agency and by the urban or rural location of the agency. We calculate the total number of episodes provided by an agency and divide all the agencies into one of five equal-sized groups. The 20 percent of agencies with the lowest volume are in the "lowest 20th percentile" group; the 20 percent with the highest volume are in the "highest 100th percentile" group, and so on. All estimated margins are positive; and the highest percentile group's margin is five times that of the lowest percentile group.

TABLE 2D-1

Freestanding home health Medicare margin, by agency group, 2001 and estimated 2003

Agency group	2001	2003
All agencies	21.9%	23.3%
Urban	22.0	23.9
Rural	21.6	19.1
Volume of episodes		
Lowest 20th percentile	5.2	7.5
40th percentile	7.9	10.2
60th percentile	14.3	16.5
80th percentile	16.4	18.5
Highest 100th percentile	26.3	28.1

Note: Data for 2001 are preliminary, based on 10 percent of all agencies covered by prospective payment. Data for 2003 are estimated.

Source: MedPAC analysis of Medicare cost report data from CMS.

Our analysis cannot exclude factors other than visit volume that could explain differences among the margins for the agencies in these percentiles. However, it does suggest that visit volume may have an impact on margin. The small size of the current sample—10 percent of all agencies reporting—suggests caution in interpreting the results we do have and tends to preclude further disaggregation.

Though margins are more than adequate in aggregate, there may be variations in the experience under PPS among some types of agencies. For example, lower margins for rural agencies suggest that some variation in their costs is not accounted for by the current payment system. Similarly, voluntary agencies that are likely to be the provider of last resort may have lower margins. Moreover, there may be other groups of agencies whose margins are significantly higher or lower than the aggregate margin that we have not yet been able to identify. Finally, we know that there is variation in how the benefit is provided across the country. If distributional issues are present and

persist, it will be difficult for financially stressed agencies to meet the needs of an aging population (see Chapter 3).

Impact of changes in volume on per unit costs

In our estimate of the current aggregate margin, we applied an estimate of cost changes rather than assuming that costs would rise at the same rate as input prices as measured by the market basket. Our second analysis of the relationship between payments and costs—designed to measure the cost changes associated with declining visit volume—determined that costs per episode fell by 16 percent from 1999 to 2001. Much of the 16 percent decline occurred before the PPS; the decline over the course of 2001 was 5 percent. Taking into account the steep decline that preceded the PPS as well as evidence that the decline continued at a slower pace after the PPS, we assumed that costs fell 2.5 percent each year between 2001 and 2003. We used this estimate of the changes in costs in our estimate of margins for 2003 instead of assuming that costs rose at the same rate as the market basket.

To estimate the change in costs, we began with costs[2] as reported on home health agencies' cost reports for 1999. First, we divided total costs into fixed and variable costs. Next, we inflated both by the market basket for 2000 and 2001. Then we applied the inflated variable costs to the number of visits by type in the beginning of 2001 and the end of 2001. This allowed us to account for both changes in the number of visits as well as the more costly, higher intensity mix of therapy and nontherapy visits in 2001 compared to 1999. Finally, we added fixed and variable costs to estimate total costs.

We made two assumptions that lead our model to err on the side of producing high costs per episode and underestimating the decreases in costs. First we assumed that fixed costs did not decline as volume declined but instead rose by the full rate of increase in input prices. Second, we assumed that variable costs per visit rose by the full rate of increase in input prices; that is, productivity had no impact on costs per visit while such influences as rising wages would increase costs. A caveat is warranted: this estimate can not account for changes in the visit itself—such as activities performed during a visit, supplies used, or the length of the visit—that may have had an impact on costs per visit beyond changes in input prices.

TABLE 2D-2

Ratio of payments to charges, by type of home health episode, 2001 and 2002

	January–June 2001	July–December 2001	January–June 2002
All episodes	1.03	1.09	1.12
Urban	1.02	1.08	1.11
Rural	1.04	1.12	1.16
Episodes with four or fewer visits	0.76	0.77	0.76
Outlier episodes	0.47	0.46	0.48

Note: Urban episodes include services delivered to beneficiaries who reside within a metropolitan statistical area (MSA). Rural episodes include services provided to beneficiaries who reside outside an MSA. Episodes with four or fewer visits are paid per visit by visit type, rather than by the episode; this is the low-utilization payment adjustment.

Source: MedPAC analysis of the 5 percent Standard Analytic File of home health claims from CMS.

Ratio of payments to charges

In addition to our estimate of the aggregate margins, we used claims from all of calendar year 2001 and the first six months of 2002 to calculate the ratio of aggregate payments to charges. This ratio is not the typical ratio of payments to costs that MedPAC uses in other sectors. However, we believe it is illuminating because it allows us to use very recent data, to look at different episode types, and to compare urban and rural beneficiaries.

From this analysis we concluded that the ratio of payments to charges was greater than 1.0 in the beginning of 2001 and was still rising by the middle of 2002 (Table 2D-2).

This ratio of payments to charges implies that the program currently pays more in the aggregate for services than it would have been charged under the previous system of charges per visit by visit type.

The ratio reinforces the conclusion that payments are more than adequate compared to costs. To arrive at this conclusion, we made two assumptions. First, we assumed that charges are as high or higher than costs. Basic economics would suggest that this is usually true. Second, we assumed that current charges are accurate. Under the cost-based system, Medicare paid agencies the lesser of their reasonable costs or customary charges. Thus, there was a strong incentive to set charges higher than costs. At that time, the ratio of payments to charges was about 0.73.[3] The current payment to charge ratios for low utilization payment adjustment (LUPA) episodes—wherein services are paid per visit by visit type—is almost the same as the ratios under the cost-based payment system when

2 Costs included visits, supplies, and outpatient therapy provided to home health users.

3 Under the cost-based system, the ratios were 0.74 in 1994 (Leon et al. 1997) and 0.73 in 1997 (HCFA 2000).

TABLE 2D-3

Use of home health after the PPS

	January–June 2001	July–December 2001	January–June 2002
Average visits per episode	22	21	20
Median visits per episode	16	15	15
Average length of stay (days)	46	47	44

Note: PPS (prospective payment system). Excludes episodes subject to the low utilization payment adjustment (LUPA) that contain four or fewer visits and are reimbursed differently from regular episodes. Beneficiaries' length of stay may span several episodes.

Source: MedPAC analysis of the 5 percent Standard Analytic File of home health claims from CMS.

incentives to set charges higher than costs were in place (Table 2D-2).

These aggregate charges included charges for visits, medical supplies, and drugs used during the episode of care. We calculated the ratio for full episodes as well as high-cost outlier episodes, episodes that include a beneficiary's significant change in condition and reclassification, and episodes with four or fewer visits that are paid by the visit.

We compared claims for services provided to urban and rural beneficiaries. In each of the three periods, the rural ratio was higher than the urban one. For example, in the first six months of 2002, agencies were paid $1.11 for each dollar in charges for services provided to urban beneficiaries, while agencies were paid $1.16 for each dollar in charges for services provided to rural beneficiaries. In the latter two periods, the impact of the 10 percent add-on for services provided to beneficiaries living in rural areas was evident. If the add-on were not in effect, the rural ratio would still have been greater than one, and greater than the urban ratio. The relationship between urban and rural ratios was the same even when we distinguish rural beneficiaries by types of rural areas.

General Accounting Office's analysis

This past summer, the General Accounting Office (GAO) also examined CMS claims data. They estimated that the average episode payment of $2,700 was $700 above the average episode cost in 2001, an overpayment of about 35 percent. To create the estimate, GAO began with CMS's estimated visit costs by visit type for 1999 (based upon an audited sample of 1997 cost reports). GAO used the home health market basket to inflate costs to 2001. To estimate episode costs, they used half a year of home health claims (January to June 2001) to calculate the average number and type of visits in each type of episode and multiplied the estimated visit costs by those averages. GAO concluded that the magnitude of the disparity between payments and estimated costs demonstrated that a reduction in payment rates—such as the implementation of the "15 percent cut"—would not harm the industry.

Appropriateness of current costs

Medicare home health services have changed consistently with the implementation of the PPS. The prevailing mode of Medicare home health care post-PPS is changing from the maintenance of consistently ill or disabled people over time at low intensity to recovery from an acute illness or injury over a short period of time with a concentration on therapy. The change began in 1997 and continued with the implementation of the PPS in 2000. Due to this change, payments may no longer be in line with costs because current payments are based on previously measured costs of production.

There are two caveats to using the average number of visits per episode as an indicator of product change. First, the decline in the number of visits per episode has not been similar from state to state. State by state average visits per episode vary widely. Although all states' averages have declined since 1997, the average number of visits per episode in some states remains high. In the first six months of 2001, home health users in Washington State received 13 visits per episode while those in Utah received 28 (GAO 2002b). Heavy use in some states pulls the national average well above the median number of visits per episode (Table 2D-3).

Second, counting the number of visits does not give us complete information about the amount of time that nurses, therapists, and others are spending in their patients' homes during a visit. If the time spent per visit is changing along with the number of visits per episode, then measuring the number of visits may fail to capture real changes in the amount of service beneficiaries receive.

Declines in the average number of visits per episode are one indicator that the product may be changing. In 1997, home health users, on average, received 36 visits in 60 days. In 1999 that number dropped to 29 visits. Over the course of the most recent year and a half, the average number of visits per 60-day episode has continued to decline at a slower rate than before the PPS, from 22 to 20 (Table 2D-3).

Another indication of the changing product is the dramatic decline in the average length of stay (LOS) of home health patients. The LOS measures the number of days between the day beneficiaries receive their first home health visit and the day upon which they are discharged from treatment.[4] Unlike patients in other settings (e.g., acute care hospitals or skilled nursing facilities), home health patients rarely receive visits

4 Under the PPS, a beneficiary may receive multiple 60-day episodes of home health services, as long as they remain eligible for the benefit. Thus, a single stay is the amount of time between the start of care and discharge; it may be one 60-day payment episode or several payment episodes.

on every day during their stay; and on some days patients may receive more than one visit. However, the home health LOS measures the duration of the observation, evaluation, and treatment of the patient's condition, even though the visits are intermittent. In 1997, the LOS was 106 days; by 1999, that number had fallen to 69 (McCall et al. 2001). In the first six months of 2002, the average length of stay for a Medicare beneficiary was 44 days (Table 2D-3). When episodes that contain 4 or fewer visits are included in the LOS calculation, the latest LOS falls further to 41 days, less than half the duration of care only 2 years earlier.

The mix of visit types has also been changing. As Table 2D-4 indicates, home health care under the PPS after October 2000 has a greater concentration of therapy compared with the payment systems that preceded the PPS. In 1997, the prevailing pattern was more typical of maintaining consistently ill or disabled persons in their homes over a long period of time, with much of the service provided by home health aides.

One aspect of home health services that surprisingly has not changed under the PPS is the provision of very short duration care. Because of strong incentives in the payment system, it was predicted that episodes of care consisting of four or fewer visits (LUPAs or low utilization payment adjustments) would dwindle under prospective payment. HHAs that make at least five visits qualify for an episode payment and avoid the LUPA; even the highest LUPA payments are much lower than the lowest episode payment. In 1997, these very short episodes comprised about 15 percent of all episodes. In its construction of the new payment system, CMS predicted that the proportion of very short episodes would fall to 5 percent (CMS 2000). However, our analysis of claims in 2001 indicates that 14 percent of all episodes for that year had four or fewer visits.

This section has discussed three home health indicators that suggest that the home health product is changing in the wake of the implementation of the PPS and one indicator that (surprisingly) has not changed. The average number of visits per episode and the LOS have declined. The mix of visits by type has shifted toward therapy and away from home health aide services. However, the incidence of LUPA episodes, despite the incentives in the payment system to avoid them, has remained about the same. The persistence of LUPA episodes suggests that one widely anticipated behavioral response to the PPS has not yet occurred. Otherwise, HHAs have responded to the incentives of the new payment system.

TABLE 2D-4

Share of visits per home health episode, by type of visit

	Pre-PPS			
Type of visit	1997	1998	1999	Post-PPS
Therapy	9%	11%	15%	23%
Home health aide	49	42	35	27
Skilled nurse	41	45	48	49

Note: The prospective payment system (PPS) began in October 2000. "Post-PPS" refers to October 2000 through September 2001. Columns do not sum to 100 percent because data were not available for all visit types.

Source: CMS analysis of the national claims history file.

Relationship of payments to costs

Our analysis indicates that home health agencies are paid more than adequately under the PPS, even after accounting for the impact of the 7 percent payment reduction (the "15 percent cut"). Indeed, aggregate margins under the home health PPS are higher than those we estimated for any other sector in Medicare. Also we do not observe measurable reductions in the quality of care—although data on this point are limited. Other market factors also indicate that payments are at least adequate compared to costs.

Changes in volume

The volume of home services in terms of the total number of visits provided has continued its post-1997 decline because a drop in the number of users has compounded the decrease in the average number of visits per user.[5] In 1997, 3.3 million beneficiaries used home health services during the year. By 1999, that number had fallen to 2.5 million (McCall et al. 2001). Following the implementation of the PPS, the number of users has continued to decline. Our analysis of CMS's claims database identified 2.2 million beneficiaries using home health care in 2001.

Many factors explain both the increase and the decrease. Examples include the level of fraud and abuse oversight; the stringency of eligibility and medical necessity criteria; and the incentives of the prevailing payment systems. To the extent that users left the system as a result of fraud and abuse oversight; tighter applications of eligibility and medical necessity requirements; and the elimination of payment incentives that rewarded the inefficient use of services, reductions in the numbers of users may be warranted. However, to the extent that users who qualify for the benefit cannot access home health services, declines in the number of users are cause for concern.

5 Estimates of use are based on fee-for-service claims and do not include Medicare+Choice enrollees.

Under the PPS, there are mechanisms that should encourage agencies to take high complexity patients—a case mix measure that adjusts payments based on complexity, multiple episodes if patients need extended care, and an outlier payment mechanism for high-cost patients. Nonetheless, the number of users continues to decline. These declines have occurred even though demographic and clinical indicators would lead us to expect an increase in home health use; in fact, estimators have repeatedly predicted annual increases in utilization. MedPAC plans to extend its current analysis of cost and use data to explore the variation in agencies' experiences and the impact of the payment system. Additionally, we note that CMS has plans to refine the PPS and to that end is:

- developing a database of claims associated with the start-of-care and discharge OASIS assessments so that outcomes and utilization can be linked,
- developing a tool for medical review of claims to detect evidence of stinting,
- providing case mix and adverse event reports to agencies so that they can monitor their processes and outcomes at the individual patient level, and
- planning to report quality information to home health care consumers.

With respect to elements of the payment system, CMS is looking into:

- the therapy threshold,
- the structure of the outlier payment mechanism, and
- refinements to the case mix system.

The Commission strongly supports this research and looks forward to its timely completion so that it can be considered in developing refinements to the PPS. The payment system should be amended to accurately capture the costs of an efficient provider.

Quality of care

The OASIS provides some evidence that the product changes in home health following the PPS have not had a detrimental effect on the quality of care. OASIS measures patients' clinical severity and functional limitations at the beginning and end of an episode of home health care. It allows HHAs to track their patients' outcomes and to change their use of resources, care planning, or other processes to improve their services. CMS also uses OASIS to produce reports for agencies' own quality improvement efforts and plans to publish OASIS-based quality information to guide consumers to choose high quality providers.

The decline in volume of visits per episode has prompted many to question the impact of low volume on the quality of care. Many studies have found that the relationship between volume and quality is weak (Bishop et al. 1999, Fortinsky and Madigan 1997, Penrod et al. 1998, Welch et al. 1996). However, one study of a rural population before the implementation of the PPS found a correlation between very low visit volume and quality (Schlenker et al. 2002). After adjusting for case mix and agency differences, the study indicated that rural home health users met the goals of their care less frequently than comparable urban home health users. CMS is testing a system of standards to relate outcomes for common diagnoses and functional limitations to visit volume (HCFA 2001).

Relating visit volume to quality presents two challenges: the home health visit remains something of a "black box," and it is difficult to measure other sources of care, especially informal care, that are available to patients at home. First, unlike the coding system for physician services, for example, home health claims data do not differentiate visits by purpose, e.g., evaluation or follow-up, teaching, or medical procedure. Without information on the content of the visit, it is very difficult to relate available measures of the number of visits to the quality of outcomes. Second, unlike institutional settings, patients at home may have other sources of care that can have a significant impact on the outcomes of care. One study that failed to find a correlation between Medicare home health use and outcomes (Penrod 1998) did find a correlation between greater use of informal care and better outcomes.

An index based upon patients' scores on the home health outcomes assessment tool suggests that quality has not declined over the first year of the PPS (Outcome Concept Systems 2002). The index captures improvement, decline, or stabilization in the patients' ability to perform activities of daily living and the severity of their clinical condition, measured by scores on the OASIS at the start of care and again at the end of care. Between the final three months of 2000 and the final three months of 2001, the median score had not moved significantly up or down.[6]

The stability of this quality index provides some evidence that quality has not declined under the PPS despite the decline in the volume of visits and the corresponding decrease in costs per episode. This reinforces our conclusion that home health agencies have improved their productivity and current costs are appropriate. However, our analysis cannot dismiss the possibility that the patient population has changed; consistent quality at lower visit volume could also be achieved by serving a less-complex mix of patients.

Entry and exit of providers

As of October 1, 2002, about 7,000 Medicare certified home health agencies were serving beneficiaries. Following a decline of about 3,000 agencies between

6 This index was developed by researchers at Outcome Concept Systems, Inc., a private firm that collects data from 700 Medicare-certified HHAs to benchmark their performance. The index was developed by a team of statisticians, researchers, and clinicians. The index was based upon 350,000 patient episodes of home health care. Participating agencies include a cross-section of sector, geographic area, and type of control (voluntary, proprietary, and others).

1998 and 2000, this number has been steady over the past several years (Figure 2D-2).

The limited exit of home health agencies over the past three years may suggest that most agencies' payments are equal to or greater than their costs. In 1996, under the cost-based payment system, about three new agencies entered for each exiting agency. During 1999 under the IPS, exiting agencies outnumbered entering ones 8 to 1. Between October 2001 and October 2002, a little over 300 agencies entered the program while nearly 200 exited; the near-equilibrium of entry and exit led to almost no change in the total number of agencies.

Entry and exit may be sensitive to less-than-adequate payments while not providing information about over adequate payments. Exits from the program seem to correspond to the implementation of the IPS, though some of those exits were involuntary. Agencies that involuntarily exited the program were unable to meet one or some of the program's integrity standards and may have left the program due to Operation Restore Trust's activities rather than the IPS. Some entries to the program may have been prevented or delayed by state regulations that limit the number of participating agencies. Comparing entry pre- and post-PPS may be misleading because the structure of the PPS may favor larger agencies with the ability to average profit and loss over a large and varied patient population. Also, though home health is not a capital-intensive sector, starting a home health agency may be more expensive than it was in the past due to tighter financial standards and greater need for computerization to manage the patient data collection requirements implemented in 1999.

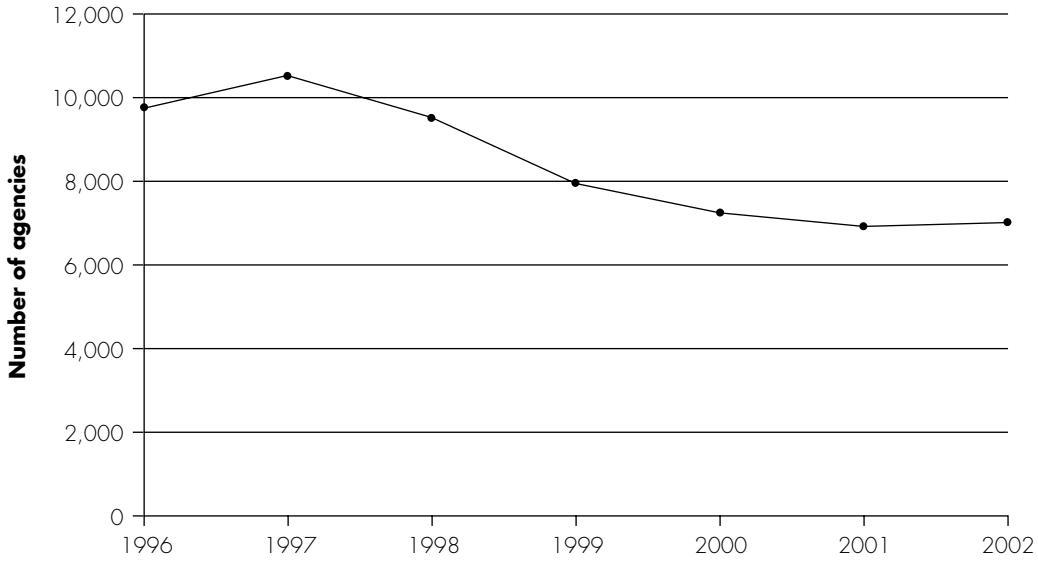
A reduction in the number of Medicare-certified agencies does not necessarily indicate a reduction in home health care capacity. Some observers have suggested that having only a small number of agencies per Medicare beneficiary in an area may impair access, but no evidence exists to suggest that the number of agencies is a meaningful measure of access. GAO found that neither closures nor changes in practice patterns were indicative of access problems (GAO 1999). In fact, "In those counties that lost their only HHA, hospital discharge planner supervisors as well as managers of nearby HHAs [reported] that access is not a problem because services are available from HHAs in neighboring counties or from branch offices located in the county" (GAO 1999, p. 20). Furthermore, because the home health industry has been experiencing acquisition and consolidation, the agencies still participating in Medicare may be larger than their predecessors.

Beneficiaries' access to care

This year, our analysis of access has the advantage of using very recent information, but also has two disadvantages. First, the nationally representative, focused work of the Office of Inspector General on access to home health care for Medicare beneficiaries that we have used in the past is not available this year. Also, neither we nor they

FIGURE 2D-2

Certified home health agencies, 1996–2002



Source: MedPAC analysis of Online Survey, Certification, and Reporting (OSCAR) system data from CMS.

currently have adequate means to assess beneficiaries' access to home health care without a preceding hospital stay.

MedPAC is developing resources to provide more information on access to care. Our episode database will be able to track patterns and changes in home health use by beneficiaries referred from the community or from a skilled nursing facility. The OIG's work, or a regular study with a similar methodology and sample, would continue to be an important parallel effort to MedPAC's access monitoring because a consistent series of studies spanning the start of the PPS provides a crucial baseline and comparisons over time.

RECOMMENDATION 2D-1

The Secretary should continue a series of nationally representative studies on access to home health services (similar to studies previously conducted by the Department of Health and Human Services' Office of Inspector General).

IMPLICATIONS 2D-1

Spending

- This recommendation should not affect Medicare benefit spending.

Beneficiary and provider

- To the extent that future OIG studies allow us to monitor beneficiaries' access to home health care, the Commission may make recommendations to preserve or improve their access to care.

One year ago, the OIG found that beneficiaries continue to maintain good access to care (OIG 2001a, OIG 2001b), suggesting that payments are at least adequate to induce agencies to serve Medicare beneficiaries. The OIG surveyed hospital and nursing home discharge planners in early 2001, after the PPS had been in place for about six months. Most discharge planners reported placing beneficiaries in home care without difficulty. Of the few planners who reported difficulties, most were unable to place only a small fraction of discharged beneficiaries.

MedPAC convened a panel of hospital discharge planners in October to continue to monitor patients' access to home health care. Generally, they offered no evidence of increased difficulties with placing most patients in home health care since the implementation of the PPS in October 2000.

The discharge planners did experience some difficulty—ranging from a one-day delay in placement to no services available—with a few patients in certain subgroups. They told us that services are more difficult to access in rural areas, especially if therapy is needed, and that since the implementation of PPS home health agencies are substituting physical therapy visits for occupational therapy, limiting social work visits, and providing fewer services for training diabetics in self-care. Patients requiring wound care, daily care, or expensive medication or supplies were among those more difficult to place, as were patients with mental illness or cognitive impairment. Members of the panel did not indicate which, if any, of the hard-to-place subgroups were newly difficult to place or more difficult to place in home health care following the implementation of the PPS. They also did not conclude that the lack of prompt home health placement necessarily led to clinically inappropriate care for patients.

Home health in rural areas

For most rural agencies, payments will more than adequately cover costs in 2003. The Medicare margin for all rural agencies in 2003 was 19.1, nearly the same as the margin for urban agencies, even accounting for the sunset of the rural add-on in April 2003. However, examining agencies in more or less densely populated rural areas reveals a wide variation in the experience of rural agencies under the PPS; some rural agencies have low margins.

At this point in time, our analysis cannot explain the variation among rural providers—low margins are not explained by what we know about volume or ownership of the agencies in the group. The very low margin group had a proportionate share of voluntary, private, and other types of control agencies. The sample had somewhat more low volume providers and fewer high volume providers than the entire sample generally; but the group also contained several very high volume providers. The sample of low margin rural providers was not geographically representative due to limitations of the sample. Costs per patient could be higher in rural areas than in urban because of the small scale of operations, the distances to travel among rural clients, and differences in the use of therapy.

The difference between the ratio of payments to charges for urban and rural beneficiaries suggests that special treatment of beneficiaries in rural areas is not necessary. As discussed earlier, claims for services provided to all rural beneficiaries, as well as claims grouped by the rural characteristics of the beneficiaries' county of residence, show that payments are higher than charges by a greater ratio than they are for urban beneficiaries' services.

Two access indicators provide mixed evidence for the special treatment of rural areas. In 2001, the OIG found that discharge planners at urban and rural hospitals were able to place Medicare beneficiaries in home health at similar rates (OIG 2001a). However, in our panel of discharge planners, five of the fifteen panelists had observed hospitals taking special measures to provide rural beneficiaries with home care. They were aware of hospitals that rented hotel rooms and owned apartments in metropolitan areas to temporarily house rural beneficiaries who could not access services at their homes. The panel's perceptions may have differed somewhat from the OIG's because the panel's much-smaller sample of discharge planners may be less representative of discharge planners generally and rural hospitals were overrepresented on our panel.

In summary, our analysis cannot dispel concerns about some rural providers. Our analysis of payment-to-charge ratios (with a large sample of recent data) tends to suggest that payments for the care of rural beneficiaries are adequate. However, variations among margins for some rural agencies and the observations of some members of the discharge planners' panel contradict this conclusion and suggest that additional payments for care provided to rural beneficiaries are appropriate.

RECOMMENDATION 2D-2

The Congress should extend for one year add-on payments at 5 percent for home health services provided to Medicare beneficiaries who live in rural areas.

IMPLICATIONS 2D-2

Spending

- This would increase spending compared to current law between $50 million and $200 million for fiscal year 2004 and less than $1 billion over five years. The current add-on of 10 percent is scheduled to expire on April 1, 2003.

Beneficiary and provider

- There is concern that payments under the PPS may not be appropriately distributed for some rural providers. Temporarily extending the add-on will provide some time for additional data and analysis to explore the variation. The lower amount of the add-on acknowledges, however, that the margins of rural providers are not very different from the aggregate margins of home health agencies as a whole.

Adjustments to current payments

Three adjustments are relevant to payments for fiscal 2003: a 7 percent reduction in the base episode rate for fiscal year 2003 ("15 percent cut"), an update, and a rural payment provision.

The Balanced Budget Act of 1997 set in motion many changes for the home health sector, including the replacement of the cost-based payment system with the IPS, and a contingency for a 15 percent reduction in the payment limits under the IPS system if CMS did not replace the IPS with a PPS. When the PPS did replace the IPS in October 2000, the reduction in the IPS limits was postponed rather than eliminated. When this cut was implemented on October 2002 under the PPS, CMS had to model the effect that a 15 percent reduction in IPS limits would have had, build in assumed behavioral changes by HHAs, and project the effect onto current spending. Due largely to the behavioral assumptions in the model, CMS estimated that a 7 percent reduction in PPS rates would be needed to achieve the reduction anticipated in the original legislation.

In addition to this reduction, rates for FY2003 were also adjusted by a market basket update. The legislated update was the percent change in the market basket minus 1.1 percent; the change in the market basket was 3.2 percent, so the base rate was increased by 2.1 percent. Thus, the net effect of the 7 percent reduction and the update was a 5 percent reduction in the base rate for an episode, to $2,160 for FY2003.

After the decreases in the number of home health users and providers in the late 1990s, concerns about access to home health services in rural areas led the Congress to provide an additional 10 percent payment for home health services provided to beneficiaries living in rural areas.[7] This addition is scheduled to expire in April 2003. Our model of current payments and costs (fiscal year 2003) incorporates the expiration of the add-on. To be conservative, the model incorporates the effects as if the add-on were unavailable for the entire fiscal year rather than only half of the fiscal year.

Accounting for providers' cost changes in the coming year

In addition to accounting for the adequacy of current payments, a payment update should account for changes in costs in the coming year. Because the home health product has changed, we have not adjusted for changes in productivity or the impact of scientific and technological advances in projecting next year's cost changes. Our estimate of the impact of visit volume on costs per episode (see discussion p. 108) suggests that costs will continue to decline over the coming year.

Home health, perhaps more so than other sectors, may feel the impact of a shortage of nurses or therapists because a large portion of its total costs are for labor. The market basket weights reflect this labor share; labor is 80 percent of home health input costs, compared to 60 percent in hospitals or 70 percent for physician services. The market basket for home health uses the same proxies for the impact of changing wages, salaries, and benefits used by the hospital sector. Within the update framework, we assume that the market basket captures changes in input prices, such as those created by a nursing shortage. At this time, we have no evidence to suggest that home health labor costs increased faster than the input prices in the market basket.

Although home health agencies are likely to face increasing input prices during the coming year, we expect a decline in the costs per episode because continuing declines in the number of visits per episode will offset the effects of rising prices. We conclude that neither a positive nor a negative adjustment should be made to the update to account for cost changes over the coming year.

7 Under the legislation, rural beneficiaries are those who reside outside a metropolitan statistical area.

Update recommendation

To summarize, MedPAC has considered the update framework in the current context for home health payment decisions. We considered the current relationship of payments and costs. Aggregate Medicare margins and the ratio of payments to charges suggest that current payments are more than adequate compared to costs. Market factors suggest that current payments are at least adequate in relation to costs: access to care is generally good, the rate of decline in the number of users has decreased, and the entry and exit of agencies has remained stable for the third year in a row.

When we considered likely changes in cost over the coming year we found that the chief influences over costs will be the price of labor and the volume of visits within an episode. These influences will work in opposite directions: prices will provide upward pressures on costs while declining visit volume will depress costs. These factors provide evidence that payments will continue to be more than adequate over the coming year.

In our March 2002 recommendations, we handled the home health payment update differently. This was because, at this time last year, no cost report data from the PPS were available. We did not have sufficient claims data to estimate whether decreases in visit volume would continue under the PPS or information on changes in quality to assess the impact of lower volume on care. Though market factors were generally positive, the Commission erred on the side of caution. Sensitive to the dramatic changes that had preceded the PPS, we recommended a year of stability. Over the course of the past year, no unforseen changes have been made to Medicare's home health benefit and time has allowed data to become available.

RECOMMENDATION 2D-3

The Congress should eliminate the update to payment rates for home health services for fiscal year 2004.

IMPLICATIONS 2D-3

Spending

- Since current law provides a full market basket update for the base payment for home health services, this recommendation would decrease spending relative to current law between $200 million and $600 million for fiscal year 2004 and between $1 billion and $5 billion over 5 years.

Beneficiary and provider

- Because we estimate that current Medicare payments are well over the costs of caring for Medicare home health users, and evidence suggests that the level of payment is only one of several influences on the use of the home health benefit, we would expect little if any effect of this provision on beneficiaries' access to care. ■

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